



**INTERNATIONAL RESCUE COMMITTEE
LIBERIA PROGRAM**

QUARTERLY REPORT

EVD RESPONSE, READINESS AND RESTORATION

(CONTRACT NO: AID-OFDA-A-15-00002)

JULY, AUGUST AND SEPTEMBER 2015

PRESENTED TO:

**THE USAID OFFICE OF FOREIGN
DISASTER ASSISTANCE**

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I. Executive Summary

PROGRAM TITLE:	EVD Response, Readiness and Restoration		
PROJECT NO:	AID-OFDA-A-15-00002		
AGENCY:	International Rescue Committee (IRC)		
COUNTRY:	Liberia		
REPORTING PERIOD:	Quarter 4, FY2015: July, August and September 2015		
GOAL:	To support the safe re-opening of Ebola-affected health facilities, with the ultimate goals of reducing patient mortality and transmission of the Ebola Virus Disease (EVD) in the community.		
OBJECTIVES:	Objective 1: Support the safe restoration of health care services in Ebola-affected facilities. Objective 2: Ensure safe sanitation and hygiene at Ebola-affected health facilities and schools. Objective 3: Provide psychosocial support services to Ebola-affected communities and health care workers.		
BENEFICIARIES:	Total Number of Individuals Affected in the Target Area:	1,144,000	
	Total Number of People Targeted (Individuals):	382,000	
	Total Number of IDPs Targeted (Individuals) as subset of above:	N/A	
LOCATION:	Montserrado County, Liberia		
DURATION:	Twelve (12) months		

I. Introduction

During Q4, the IRC continued support to the safe restoration of services at Redemption Hospital, providing daily coaching and mentoring to MOH staff on delivering care and clinical decision making in the context of the EVD epidemic. From July to September, 2015, the Adult Emergency department had a total of 730 admissions, the Obstetric ward had 797 admissions and the Pediatric ward had 413 admissions. These numbers represent a 12% increase of the in-patient admissions to the Adult Emergency and Pediatric wards, and a 7% increase to the Obstetric ward as compared to the Q3 data. The increase in admissions shows that people are gradually gaining confidence in the quality of services delivered at the hospital. The IRC's psychosocial interventions on the wards and in the surrounding communities are also encouraging people to seek health care at the hospital. However, Redemption is currently unable to meet the needs of its catchment population due to the implementation of new infection prevention and control measures which require one patient per bed and 2-3 feet between beds, which has reduced the overall bed capacity of the hospital.

To meet the needs of Redemption staff, patients and the local community, the IRC psychosocial team offered individual and group counseling including psychosocial first aid (PFA) sessions at Redemption; community sensitizations and awareness programs; community support groups (healing dialogues); and disseminating information to local communities about Redemption Hospital's new IPC measures and service delivery. The IRC also provided capacity building workshops on how to address stigma and discrimination, PFA and supportive communication to local community based organizations (CSOs) like women and youth groups, and community leaders. Through these interventions, in Q4, the psychosocial team counseled 430 patients in different wards at the hospital, 155 in in-patient and out-patient departments and 219 staff. Similarly, the psychosocial team reached 7,495 community members through community outreach activities. In addition, from August 17 - 21, the psychosocial team celebrated "psychosocial week" which included a memorial ceremony at the hospital to recognize 12 Redemption staff, who lost their lives during the Ebola outbreak.

At the beginning of July, the IRC initiated a qualitative study on the community engagement activities using participatory action research (PAR) methodology. The PAR aims to improve the quality of communication, interactions and utilizations of maternal health services at Redemption Hospital among women of reproductive age in New Kru Town (NKT) while addressing barriers to timely and safe maternal health services in NKT. The study will also capture the experiences of stakeholders, namely pregnant women, community health workers and Redemption Ministry of Health (MOH) health workers during the Ebola crisis.

The IRC continued to manage the Ebola Transit Unit, a 10-bed isolation facility in Q4 by admitting 65 EVD-suspected patients while awaiting their Ebola test results. The IRC also worked with the MOH and Redemption Hospital to devise a transition plan for the Transit Unit that will coincide with United Nations Office for Project Services' (UNOPS) plan to construct a permanent isolation facility where the Transit Unit is currently located. During the reporting period, the IRC also supported the roll out and testing of the GeneXpert assay, which will bring EVD testing capacity in-house at Redemption.

II. Summary of Activities

Redemption Hospital

Coordination among Government, Partners and Staff: The IRC is the lead partner at Redemption Hospital, supporting the safe restoration of health services. As part of this role, the IRC helps the hospital administration coordinate external support through weekly partner coordination meetings, as well as weekly technical meetings on IPC, lab and clinical care.

In addition to the IRC, a total of five partners provided assistance to Redemption Hospital during Q4 – see summary below.

Partner	Roles, Responsibilities, and Contributions
IRC	<ul style="list-style-type: none"> • Coordination: Supported Redemption administration to manage partner support. • Infrastructure Rehabilitation: Completed refurbishing the super-structure for drug warehouse and oxygen plant filling station. • Waste Management: Supervised and built capacity of staff on waste handling and management. • Triage and Isolation: Managed operations at the IPD triage and 10-bed Ebola Transit Unit. Provided support to the OPD triage. • Clinical Health Care: Provided direct health care to patients in the Pediatric, Obstetric and ER wards and managed operations at the 10-bed Ebola Transit Unit, located next to the hospital. Piloted a GeneXpert Ebola assay for EVD testing and continued Expanded Ebola testing program for patients admitted to the TU and IPD. • Procedures, Protocols and Management: Provided mentoring in safe clinical care, infection protection and control (IPC), administration, and human resources to Redemption staff. • Drugs and Medical Supplies: Procured and delivered essential drugs and medical supplies. • Psychosocial Services and Community Outreach: Provided psychosocial support to hospital staff returning to work at Redemption, strengthened psychosocial services delivered at Redemption, including mitigating the psychosocial impact of IPC measures on patient care, and served as a liaison between Redemption staff and New Kru Town community members. • Participatory Action Research: Conducted stage 1 & 2 meeting with stakeholders in NKT community and Redemption hospital in order to improve the quality of communication, interactions and utilizations of maternal health services at Redemption hospital among women of reproductive age in New Kru Town.
ACCEL	<ul style="list-style-type: none"> • IPC: Continued supporting IPC measures at Redemption through refresher training. • Laboratory: Engaged in planning to upgrade laboratory facilities, including provision of materials and supporting lab for EVD testing using the GeneXpert.
UNICEF/ACF	<ul style="list-style-type: none"> • Nutrition Department: UNICEF through ACF, provided high energy therapeutic food to the nutrition department.
Global Communities	<ul style="list-style-type: none"> • Specimen Transport: Transported specimens from Redemption to LIBR lab. • Safe Burial: Posted safe burial team at the Redemption morgue to ensure bodies of patients who have expired at the hospital are tested for EVD and safely turned over to families.
UNOPS	<ul style="list-style-type: none"> • Transition EVD Transit Unit: Coordinated and liaised with implementing partners in order to redevelopment of the EVD transit Unit into a permanent multipurpose infectious disease Unit (timeline TBD). • Triage Construction: Build permanent in-patient/outpatient triage area (timeline TBD).

From July – September, Liberia began scaling down the frequency and altered the type of coordination meetings that had been necessary during the EVD outbreak. These meetings are now held through more regular, information sharing sessions and small working groups. The IRC continued to participate in the National Incident Management System (IMS) meetings, and contributed to the efforts of the case management, laboratory, and psychosocial sub-working groups. The IRC also coordinated with the Montserrado response teams, which were formed after the last outbreak in Margibi/Montserrado, and with the WHO and CDC who provide overall technical assistance to the MOH.

Infrastructure Rehabilitation: In Q4, the IRC completed the minor repairs and refurbishing of the drug warehouse space at Redemption Hospital and renovation of existing superstructure to host the oxygen production line (PSA Premium 90 HF and

HP34). In preparation for rainy season, the IRC also completed the minor repairs to the damaged drainage system at Redemption Hospital and transit unit.

Waste Management: Since the decommissioning of medical waste activities have been completed, the IRC IPC team has shifted its focus to capacity building of health care workers on waste handling and management through mentoring/coaching and day-to-day supervision at the work place during the reporting period. The IRC also supported the hospital to operate an incinerator (I8 INCINER8) that has the capacity to burn 200 kilograms of waste per load. In Q4 the IPC team burnt 11 tons of the hospital-generated waste using the incinerator. In the next quarter, the IPC team will focus activities on operating the large incinerator, while strengthening the capacity of Redemption Hospital staff in incinerator operations and maintenance.

Triage and Isolation: IRC and Redemption staff remained vigilant and maintained the triage systems in place at both the IPD and OPD entrances. Currently, 6 IRC nurses and 8 hygienists support the screening of EVD at Redemption. Likewise, the IRC is also managing the operations of Ebola Transit Unit, a 10-bed isolation facility adjacent to the hospital. Under the IRC, the Transit Unit is staffed by an expatriate doctor and head nurse, and 38 IRC national staff (11 health staff, 27 IPC and psychosocial staff) who ensure 24 hours of operations. Following the transition from MSF to IRC in Q3, the IRC held a refresher training on donning and doffing procedures as the IRC PPE differ slightly from those used by MSF. In Q4, a total of 65 patients met case definition and were referred to the Transit Unit. One hundred percent of the cases admitted tested negative for EVD during the quarter.

Clinical Health Care: The IRC continued supporting the restoration of safe healthcare at Redemption Hospital during the reporting period through mentoring and coaching MOH staff at Redemption Hospital on clinical decision making in the context of EVD. Over the course of Q4, there were a total of 1,940 admissions to the inpatient department and 11,936 consultations at the outpatient department. There were a total of 603 deliveries at Redemption Hospital and 532 of them were normal in Q4 data. The number of deliveries and live births has decreased by 8% and 13% respectively, in comparison to Q3 data. The hospital also observed five maternal deaths in the same quarter. Please refer to the annex for more information on Q4 data. To address these clinical outcomes, IRC clinicians conducted one-day refresher training in Pediatric Basic life Support and Essential Acute Care Equipment (CPAP, fluid infuses and neonatal transcutaneous Bilirubinometry) targeting 60 healthcare workers from the pediatric department in three different groups. Likewise, IRC clinicians also provided one-day refresher training in Adult Basic Life Support; and Emergency Triage Assessment and Treatment in Q4, targeting 40 nurses and 7 physician assistants working in adult emergency department for three groups. The purpose of the training was to improve patient safety and quality of emergency care, while still maintaining proper IPC procedures.

In order to enhance the surveillance system for EVD among patients seeking health care at Redemption Hospital and in order to “rule out Ebola”, the IRC continued to support the Ebola expanded testing program. The pilot was designed in coordination with the IPC and Lab subcommittees under the national IMS. From July – September, Redemption Hospital ordered a total of 36 tests under the expanded testing program, all of which came back negative. In Q4, partners including WHO, CDC and ACCEL in collaboration with IRC and Redemption Hospital management also supported the expanded testing program through provision of the GeneXpert Ebola Assay, a real-time reverse transcription polymerase chain reaction (RT-PCR) test for qualitative detection of EVD, and training for four lab technicians. A total of 32 out of 65 patients admitted in IRC transit unit had carried out EVD tests at Redemption Hospital using the GeneXpert. The tests are run in tandem with quantitative DNA-PCR EVD tests at the Liberia National Reference laboratory (LIBR) for quality assurance. In addition, the IRC provided training for ten staff (five from Redemption and five from the Transit Unit) on the administration of the Ebola Rapid Diagnostic Test. Unfortunately, CDC has yet to deliver or provide guidance on the roll out of this testing mechanism.

Procedures, Protocols and Management: While the response to the confirmed Ebola positive case that occurred on June 30, 2015 at Margibi County - almost two months after Liberia was declared EVD free - was successfully coordinated, the IRC and Redemption Hospital staff remained vigilant in Q4 and bolstered staff’s capacity in adhering to IPC protocols at triage through modeling, repetition and mentoring. IRC staff also ensured that national guidelines, policies and procedures on EVD are followed at Redemption Hospital. Additionally, the IRC continued to fill the HR gaps in proper IPC implementation through the provision of 1 expatriate WASH manager and an IRC IPC team of 20 national staffs- 13 cleaners, 2 sprayers, 3 incinerator operators and 2 supervisors who work in shifts for 24/7 coverage. This team, in collaboration with Redemption staff, was able to maintain strict administrative controls of patient screening at triage both IPD and OPD and care in the facility to prevent infection of health care workers, uninfected patients, and visitors in Q4 while referring 100% of patients to the IRC transit unit who met the case definition for Ebola. In response to staff needs, the IRC also conducted a one day

refresher training for 27 Redemption staff on IPC protocols. The purpose of the training was to reinforce staff's IPC knowledge, to identify existing IPC resources and gaps, and to improve IPC compliance. This training also provided an explanation of why IPC at health facilities is essential to interrupting disease/infection transmission and protecting the health workforce and people seeking care.

Additionally, the IRC worked closely with Redemption Hospital management and Montserrado Consortium partner Global Communities to ensure EVD testing and safe handover of deceased patients to family members as per the current national guidelines. A total of 209 swabs were taken by the Redemption morgue and lab teams during the quarter.

Moreover, the IRC clinical team along with HR Coordinator provided continuous support to Redemption Hospital management in establishing a more structured working environment. The IRC also offered its support to hospital senior management team to carry out a staffing needs assessment and the findings afterwards were submitted to the MOHSW in order to fill the critical gaps.

Drugs and Medical Supplies: In Q4 the IRC received some of its international shipments for essential drugs and medical supplies including the oxygen cylinders filling station. There was no stock out of essential drugs and medical and non-medical supplies including IPC supplies in Q4. Please refer to annex 1 for a complete list of the supplies provided.

Psychosocial Services and Community Outreach:

In Q4 the IRC continued to offer its psychosocial support and community outreach activities at Redemption Hospital and the surrounding communities in New Kru Town. On the wards, the psychosocial team offered daily support to 430 patients (292 women and 138 men) and counseled 212 family members of those patients. In the triage unit, the IRC supported and counseled an additional 155 patients (88 women and 67 men) and 74 of their family members. The psychosocial team also provided individual counseling to 72 staff (35 women and 37 men), group counselling to 147 staff (87 women and 60 men) and a psychosocial first aid session to 8 staff (2 women and 6 men). The team also spearheaded efforts to establish a psychosocial journal team, consisting of staff from the HIV/TB, Sexual and Gender-based Violence (SGBV) and the Mental Health departments in the hospital, in order to establish a referral network system for psychosocial support services in and outside of the hospital. This will not only improve the quality psychosocial service delivery but also enable the sustainability of quality psychosocial service delivery in the hospital after the IRC's departure. Furthermore, the team has organized a number of workshops for the identified staff on stress management, self-awareness and "keep safe keep serving" campaigns. A total of 32 participants (14 female and 18 male) have been trained.

In order to facilitate emotional healing and improved relationships between the hospital staff and surrounding communities, the psychosocial team engaged in a number of activities within the surrounding communities. These included disseminating information about the hospital new measures of service delivery (i.e IPC measures in place, availability of beds, visiting hours) and the need to utilize services available among others. Through this intervention, the team was able to reach out to 3,894 community members seeking health care at hospital. The team also conducted sensitizations and awareness programs, community support groups (healing dialogues), capacity building workshops on stigma and discrimination, community involvement, PFA and supportive communication among others. Through these interventions, the team has been able to reach 7,495 community members.

One of the main findings during the July needs assessment, conducted both in the hospital and in communities around New Kru town, was the expression of fear and pain due to loss of loved ones during the EVD crisis. In response, the IRC organized a psychosocial week (17th -22nd August) packed with activities to facilitate emotional health. These activities included radio programs, a memorial lecture for the 12 health workers that died because of the EVD virus in the hospital, and a memorial service which also involved community members plus the bereaved families. Other activities included community sensitization and awareness programs (tailored to the theme of the week), a debate and a fashion show. All these activities involved community members, Redemption Hospital staff, IRC staff, Ministry of Health and other partners involved in psychosocial work in Liberia. These activities reached a total of 2,769 people (note that records of persons who listened to the radio program were not captured).

To facilitate a smooth transition to the new IPC measures and to encourage patients to utilize the services offered at Redemption Hospital, the IRC psychosocial team held a series of community activities during the quarter. The team conducted health talks to 3,894 community members seeking health care at hospitals and explained how hospital triage works

and the importance of IPC measures to prevent infections and EVD. Similarly, through community outreach activities, the team delivered messages on psychosocial support, supportive communication & PFA and hygiene and sanitation

Participatory Action Research (PAR): After the re-opening of Redemption Hospital, the IRC observed a significant reduction in utilization of maternal health services. New Ebola infection and prevention control (IPC) measures reduced the capacity of the hospital to accommodate all women arriving to deliver at the hospital. Through IRC-held focus group discussions with the community, community members have also expressed an increased trust in community-based traditional birth attendants (TBAs) and traditional midwives (TTMs). Though the TBAs and TTMs have received basic training on maternal health, they are still supposed to refer women to facilities for delivery.

The IRC team initiated a process to address barriers to timely and safe maternal health services through Participatory Action Research. This methodology shifts the power dynamic and promotes relationship-building between stakeholder groups in the New Kru Town (NKT) community and the health system. It facilitates participants to be researchers themselves, to generate and use their own knowledge of the local context to improve access to and quality of maternal health services. The PAR aims to improve the quality of communication, interactions and utilizations of maternal health services at Redemption Hospital among women of reproductive age in New Kru Town. The main objectives of the study are to:

1. Identify and analyze how the Ebola epidemic has worsened existing weaknesses or created new gaps in the maternal health system in NKT.
2. Identify and implement actions that address these weaknesses/gaps or that strengthen positive practices.
3. Establish collaborative co-ordination and monitoring of progress on an agreed action plan, in a way that can be sustained after the project has ended.



Figure 1 Development of the PAR joint-action plan

During the reporting period the IRC completed stage 1 meetings with 3 groups: 35 New Kru Town Community Members (10 Male Leaders, 10 Female leadership, 15 TBAs/TTMs), 17 Redemption Hospital Staff (5 Female Antenatal Midwives, 9 Female & 1 Male OBGYN Staff, 2 Male Hospital management); and 35 pregnant women from New Kru Town. These meetings were facilitated by IRC psychosocial staff and volunteer representatives from each group who received a 3-day facilitator training. The meetings used interactive participatory methods to analyze the importance and accessibility of Maternal Health services, priority impacts of Ebola and major areas of action.

At Stage 2 meetings, group members came together to compare findings and agree on a joint action plan to improve access to maternal health services in New Kru Town. A monitoring committee with representatives from all groups was formed to oversee the progression of these actions from now until December 31st 2015. The areas of action include:

1. Establish a drama group to raise awareness of Maternal Health issues and reduce stigma in NKT, led by pregnant women and advised by hospital staff.
2. Improve collaboration between hospital staff and TTMs/TBAs – (Inc. coming into delivery room, referral process, respecting one another).
3. More training of TTMs/TBAs in New Kru Town, (Including recognizing complications & timely referrals).
4. Redemption Hospital to work with local clinics to facilitate referrals and strengthen their capacity for safe deliveries.

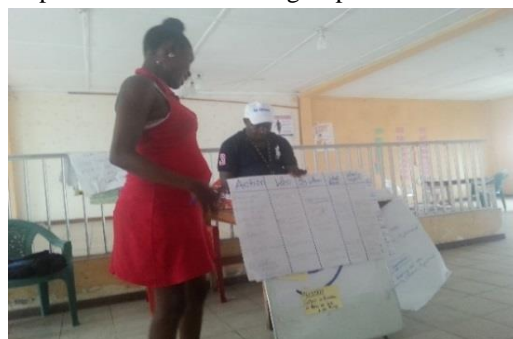


Figure 2 Member of the pregnant women group presenting their action plan.

The team also carried out pre-test/post-test study design on “A perceived barriers and enablers of maternal health service utilization at Redemption hospital among NKT women of reproductive age in post-Ebola context”. This was a household survey of sample size 150 households from 30 blocks of 25 NKT communities, as

well as a survey for all PAR participants. The data is currently in the compiling stage, and the IRC will share its findings in Q5.

III. Indicator Tracking

	Indicators	Indicator type	Unit	Target	Q1	Q2	Q3	Q4	Cumulative	Remark
A. HEALTH										
1	Number of health care facilities supported and/or rehabilitated by type (e.g., primary, secondary, tertiary).	OFDA	Facility	24	25* (this includes 5 facilities that were close)	31 (including the 8 MTI facilities that received KSK training)	24 (this represents only IRC supported clinics)	1	24	Supported just Redemption hospital.
2	Number of consultations, disaggregated by age (children under 5 yrs, and over 5 yrs), per quarter.	OFDA	Person	1,600 600 (U5) 1000 (>5)	n/a	358 Neonates : 32 Children U5: 139 Children over 5 years: 51 Adults: 136	1,017 Neonates: 29 Children U5: 278 Children over 5 years: 72 Adults: 638	1143 Neonates: 14 Children U5: 291 Children over 5 years: 108 Adults: 730	2,518 Neonates: 75 Children U5: 708 Children over 5 years: 231 Adults: 1,504	Adult ER and Pediatric ward only.
3	Percentage of patients meeting EVD case definition at Redemption Hospital triage referred to the IRC Transit Unit.	Non-OFDA	Referral	100%	n/a	100%	100%	100%	100%	65 patients meeting case definition at OPD and IPD (includes 12 by case investigators) were referred to IRC TU.
4	Number of positive EVD cases identified in triage and identified on the ward.	Non-OFDA	Person	n/a	n/a	1	0	0	1	On March 19, one suspected EVD case tested positive when referred to MSF transit unit.
5	Number of supplies distributed by type (e.g., medical kits, equipment, consumables).	OFDA	Item	n/a	n/a	Total pharmaceuticals: 3,282 Total	Total pharmaceutical: 6,863 Total	Total pharmaceutical: 7407 Total	Total pharmaceutical: 17,552	

						medical supplies and equipment: 53,006 PPE: 7,114 Total IPC supplies (including PPE): 16,588	medical supplies and equipment: 41,589 PPE: 360 Total IPC supplies (including PPE): 68435	medical supplies and equipment: 38565 PPE:3160 Total IPC supplies (including PPE): 23211	Total medical supplies and equipment : 133,160 PPE: 10,634 Total IPC supplies (including PPE): 108,234	
6	Number of people trained, disaggregated by sex, in the use and proper disposal of medical equipment and consumables.	OFDA	People	200	78 (M-35 F-43)	378 (M-141 F-237)	233 (M- 100 F- 133)	107	796	
7	Number of stock outs of infection prevention control supplies at supported facilities	Non-OFDA	Occurrence	Zero stock out	0	No stock out	No stock out	No stock out	No stock out	IPC supplies were distributed in all IRC supported facilities.
8	Incidence and prevalence of chronic and other diseases (e.g., trauma), disaggregated by age	OFDA	Number	n/a	n/a	Trauma: 35 Hypertension: 35 Severe infections in HIV patients: 14 Malaria: 13 Anemia: 12 Acute Asthma: 12 Physical assault: 9 Peptic ulcer disease: 6	Trauma: 156 Hypertension: 69 Severe infections in HIV patients: 1 Malaria: 82 Anemia:34 Acute Asthma: 20 Physical assault: 15 Peptic ulcer disease: 0	Trauma: 180 Hypertension: 64 Severe infections in HIV patients: 0 Malaria: 109 Anemia:34 6 Acute Asthma: 27 Physical assault: 2 Peptic ulcer disease: 0	Trauma: 371 Hypertension: 168 Severe infections in HIV patients: 15 Malaria: 204 Anemia: 82 Acute Asthma: 59 Physical assault: 26	See annex 1

									Peptic ulcer disease: 6	
9	Incidence and prevalence of high-morbidity rates by type (e.g., diarrhea, acute respiratory infection (ARI), measles, and other), disaggregated by age;	OFDA	Number	n/a	n/a	Malaria: 88 Pneumonia: 37 Anemia: 22 SAM: 12 Bacterial Sepsis: 11 Diarrhea: 11	Malaria: 163 Pneumonia: 55 Anemia: 10 SAM: 4 Bacterial Sepsis: 17 Diarrhea: 10	Malaria: 176 Pneumonia: 59 Anemia: 64 SAM: 17 Bacterial Sepsis: 6 Diarrhea: 19	Malaria: 427 Pneumonia: 106 Anemia: 90 SAM: 33 Bacterial Sepsis: 34 Diarrhea: 40	See annex 1
10	Case fatality rates for diarrhea, ARI, malaria, and other, disaggregated by sex and age	OFDA	Number	Pneumonia- 10% Malaria- 5% Diarrhea- 10%	n/a	Pneumonia- 10.8% Malaria- 4.5% Diarrhea- 9.1% SAM: 0% Bacterial Sepsis: 27.3%	Pneumonia- 4.4% Malaria- 2.2% Diarrhea- 0% SAM: 0% Bacterial Sepsis: 0%	Pneumonia- 7% Malaria- 2% Diarrhea- 0% SAM: 0% Bacterial Sepsis: 0%	Pneumonia- 7% Malaria- 3% Diarrhea- 3%	See annex 1
11	Percentage of suspected Ebola cases in the Redemption hospital that are detected through the surveillance system.	Non-OFDA	Percentage	100%	n/a	100%	100%	100%	100%	Conducted “rule out Ebola”- expanded testing in 30 Ebola suspected patients in Q4.
12	Percentage of children with malaria, pneumonia and diarrhea treated according to protocol	Non-OFDA	Percentage	100%	n/a	100%	100%	100%	100%	All the malaria, pneumonia and diarrhea cases were treated according to protocol
B. WATER SANITATION AND HYGIENE										
13	Number of people benefiting from solid waste management, drainage, and/or vector control	OFDA	Number	19,290	n/a	1,388	19,290	19,290	19,290	Completed

	activities									
14	Number of supported health facilities with an established triage system	Non-OFDA	Number	20	n/a	12	13	-	13	Completed
15	Number of people directly benefitting from this water supply infrastructure program.	OFDA	Number	2,250	n/a	1,010	2,250	-	2,250	Completed
16	Number of people receiving direct hygiene promotion (excluding mass media campaigns and without double-counting)	OFDA	Number	250	n/a	457	224	-	681	Completed
C. PROTECTION										
17	Number of people trained in psychosocial support (by sex)	OFDA	Number	2,600	693 (M-344 F-349)	1,406	26 (M-11 and F-15)	32 (M-18 and F-14)	2,157	
18	Percentage of trainees demonstrating retained knowledge and skills at 1 month and 3 months post training	Non-OFDA	Percentage	70%	n/a	19.1% (10% HCW) (23.7% non-HCW)	N/A	N/A	n/a	
19	Number of community members engaged in psychosocial support activities (individual support, support groups, drama & recreational activities, sensitizations)	Non-OFDA	Number	1,000	n/a	1,166	1,862	7,495	10,523	Support group (M-214, F-220), Community meeting (M- 2,639, F- 2,468) , sensitization (M-971, F- 983)
20	Number of community members directly engaged in dialogues about Redemption hospital (Inc. door to door, community meetings, dramas & focus group discussions)	Non-OFDA	Number	10,000	n/a	1,807 (M-396 F-1,411)	9,135	3,894	14,836	Health talk at hospitals- 3,894 M-561, F- 3333
21	Number of Redemption Hospital in-patients	Non-OFDA	Number	300	n/a	111 (M-24	358 (M- 116	430 (M- 138	899	

	supported by Psychosocial Staff					F-87)	F- 252)	F- 292)		
22	Number of Health-care workers receiving individual self-care planning and other psychosocial support	Non-OFDA	Number	300	n/a	90	295	219	604	

IV. Constraints and Challenges

Absenteeism and high attrition rates among MOH staff remain the biggest challenges for the project. Though IRC clinicians and the HR Coordinator are supporting RH management in establishing more structured working environment, the Liberian health system as a whole is struggling with work force issues that were only worsened by the EVD outbreak. The Investment Plan for Building a Resilient Health System outlines how the Government of Liberia will address these issues in the long term, but Redemption Hospital is unlikely to see any relief in the lifetime of this project. In the meantime, the IRC continues to work closely with the Redemption Hospital Administrator and Medical Director to provide guidance and assistance on issues as they arise. Most importantly, the IRC is filling critical HR gaps in the hospital staffing structure that are essential for implementing the current heightened surveillance policies.

Patient referrals from Redemption to other facilities due to reduced bed capacity to meet IPC standards is becoming a bigger challenge as utilization of the hospital increases. Redemption is the only free healthcare facility in Monrovia offering a wide range of services and most patients do not have money to pay for healthcare at private facilities. The IRC and Redemption staff worked collaboratively in Q4 to map and assess surrounding primary health facilities in an effort to increase healthcare capacity in the catchment area. So far, there has been a feedback meeting to discuss referrals and training sessions in order to improve options for maternal health in those primary health facilities.

At the Transit Unit, patients are forced to prolong their stays due to increased EVD test result turnaround from the Liberia National Reference laboratory. The partners such as WHO, CDC and ACCEL have trained four lab technicians and five nurses at Redemption Hospital on GeneXpert Ebola Assay, a real-time reverse transcription polymerase chain reaction (RT-PCR) test for qualitative detection and Ebola Rapid Diagnostic testing. The Redemption staff, in collaboration with the IRC clinicians, has started piloting a EVD test result using GeneXpert on 32 Ebola suspect patient in tandem with quantitative DNA-PCR EVD tests at the Liberia National Reference laboratory (LIBR) for quality assurance. So far the test results have 100% accuracy. Starting next quarter, Redemption hospital will use GeneXpert as a stand-alone test for EVD testing. The IRC has also encountered challenges coordinating the roll out of the Rapid Diagnostics Test with the CDC, which had planned to pilot the test at the Transit Unit. Though the IRC set up a work space, developed protocols and provided training for staff at the request of CDC, the CDC has not yet communicated when they will begin the pilot.

V. Activities for the Following Quarter

In Q5, the IRC will continue day to day support to Redemption Hospital and maintain response capacity should the current outbreak extend past the existing cluster or if there is another outbreak in Montserrado. Building off of the initial planning workshop at the end of May, the IRC and Redemption will finalize a joint work plan outlining the gradual and responsible handover of activities to the MOH. This includes the transition of the Transit Unit into a multipurpose infectious disease unit, which can eventually be run by the hospital without external support. In line with this, a working group made of UNOPS engineers and IRC and Redemption staff familiar with the Transit unit was constituted, charged with developing the final architectural designs for the Multipurpose Infectious Disease Unit to be set up at Redemption, work plans and timelines for this action. During construction, the IRC will fill critical gaps in staffing including an ER doctor and nurses to screen patients at the inpatient and outpatient triage areas to ensure the hospital is still protected from EVD.

The large incinerator was installed this quarter, therefore the IPC team will focus efforts on training Redemption Hospital staff on incinerator operations and maintenance while adhering IPC protocols and SOPs. The IPC team will also provide support on the IPC activities through mentoring, repetition and modeling while downsizing the staff over the time.

The IRC psychosocial team will continue psychosocial counseling and community engagement activity in Redemption Hospital and its catchment communities. The PAR team will implement the action plan in conjunction with the monitoring committee and will hold community and review meetings in December to share findings, lessons learned and the future direction.

Annex 1: Clinical Overview of Redemption Inpatient Department

TABLE 1: Major causes of Neonatal admission at Redemption Hospital in the months of July to September 2015 disaggregated by sex

Disease condition	Female	Male	Total
Neonatal sepsis	7	15	22
Birth Asphyxia	15	18	33
Prematurity	11	12	23

TABLE 2: Major causes of admission among children 2 months to 13 years at Redemption Hospital in the months of July to September 2015 disaggregated by age

Disease Condition	0-5 years	6-13 years	Total
Malaria	176	72	248
Pneumonia	59	7	66
Anemia	64	11	75
Bacterial Sepsis	6	2	8
Severe Acute Malnutrition	17	1	18
Acute Watery Diarrhea	19	2	21

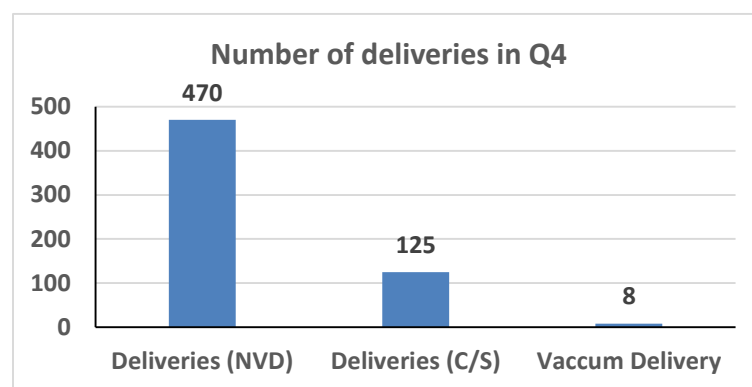
TABLE 3: Major causes of admission among Adults-ER at Redemption Hospital in the months of July to September 2015

Disease condition	Total
Trauma [‡]	180
Malaria	109
Hypertension	64
Anemia	36
Diarrhea	9
ARI	1
Cerebral vascular accident	7
Sepsis	13

[‡] Trauma: It includes abrasion, accident, chest trauma, fracture, laceration, multiple injuries, injuries, assault, road traffic accident and trauma.

Figure 1: Deliveries carried out at Redemption Hospital in the months of July to September 2015 disaggregated by delivery type

- This gives a caesarian section rate of 20.7%
- Maternal deaths July to September 2015, were 5.

**TABLE 4: Major Pregnancy complications in pregnant women admitted at Redemption Hospital in the months July to September 2015**

Disease Condition	Number
Antepartum Hemorrhage	18
Postpartum Hemorrhage	13
Anemia in Pregnancy	30
Pre-Eclampsia/Eclampsia	30
Unsafe Abortions	44
Malaria in Pregnancy	83

TABLE 5: Case fatality rates of high morbidity disease in Children 2 months to 5 years admitted at Redemption in the months July to September 2015

Disease condition	Admissions	Deaths	Case fatality rate
Bacterial Sepsis	6	0	0%
Pneumonia	59	4	7%
Malaria	179	4	2%
Acute Watery Diarrhea	19	0	0%
Severe Acute Malnutrition	17	0	0%

TABLE 6: Total patients screened/admitted at Transit Unit in the months July to September 2015

Month	Screened	Admitted	Total Admitted		Total Admitted		Seek care			Ebola test		Malaria test	
			Female	Male	0-15	Over 15	<24 hrs	1-3 days	> 3 days	E. Neg	E. Pos	M. Neg	M. Pos
July	23	23	12	11	2	22	7	8	8	23	0	4	4
August	27	27	16	11	1	25	3	10	13	27	0	16	6
September	15	15	6	9	0	15	4	5	6	15	0	7	6

Total	65	65	34	31	3	62	14	23	27	64	0	27	16
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Annex 2: Number of supplies by types provided to Redemption hospital and transit unit.

Row Labels	Unit	August	July	September	Grand Total
Adhesive Tape 10cm+5m	Box of 1	149	136	40	325
Albendazole 200mg	box of 1000			29	29
Amoxicillin 250mg Tab.	Box of 1000	7	10		17
Artemether 20mg/Lumefantrine 120mg(Coarter) CHILD	Box of 360	2	2	12	16
Artemether 20mg /Lumefantrine 120mg (Coartem) Ad.	Box of 720	4	5	19	28
Artemether 20mg/Lumefantrine 120mg (C0arter) Youth	Box of 540	1	1	10	12
Artesunate 60mg inj .Vial.	Bottle of 1		100	15	115
Ascorbic Acid 250mg Tab.	Box of 1000	1			1
Azithromycine 250mg Tab. Blister	Box of 120	50	111	37	198
Bag Plastic for drugs	Box of 100	2000	500	300	2800
Battery Pack of 4 AAA(High-Energy)	Box of 4	4	12	8	24
Blood bag 250ml	box of 10	1		46	47
Blood bag 450ml	box of 10			5	5
Blood Collection Set 21g Vaculainer)	Box of 25	1	1		2
Blood grouping Anti A' 10 ml	Pc of 1		1	1	2
Blood grouping Anti AB' 10 ml	Pc of 1		1	1	2
Blood grouping Anti B' 10 ml	Pc of 1		1	1	2
blood grouping anti D 10ml	box of 10		1	1	2
Blood-Lancets Set(Sterile)	Box of 200		1		1
Calamine lotion 500ml	box of 25			31	31
Capillary Tube 75 mm	Box of 100	800	1300	300	2400
Cefixime 200mg Tab.	Box of 100	22	51	12	85
Cefriaxone 250mg Inj Vial	Bottle of 1	22	16	56	94
Ceftriaxone 1g Inj. Vail.	Box of 50	210	4	218	432
Chloramphenicol 1% eye ointment	box of 10			200	200
Chlorhexidine Gluconate Solution 5%	Box of 15	5	3		8
Ciprofloxacin 250mg Tab.	Box of 1000	3	8	2	13
Clotrimazole 1% cream 20g	box of 150			90	90
Co-Amoxiclav	Box of 50	100	82	98	280
Compress Gauze 7.5+7.5cm	Box of 100		300	1000	1300
Cotromoxazole 480mg Tab.	Box of 1000	5	5	3	13
Cotton Wool 500g	Box of 25	16	35		51
cover glass (microscope)	box of 100			1	1
Dexamethasone 4 mg/ml, 1ml inj.	box of 100	1		1	2
Diazepam 5mg Tab	Box of 1000			1	1

Diazepam Injection 5mg/ml	Box of 100	1		2	3
Digital Thermometer (forehead)	Pc of 1	2	13	4	19
Disposable sheet for bed (400 mm X 600 mm)	Carton of 200	8		122	130
Doxycycline 100mg Tab.	Box of 1000		1		1
Elastic Bandage Crepe 8cm+5m	Box of 20	276	9	240	525
Erythromycin 250mg	Box of 1000	7	7	50	64
Erythromycin 500mg	box of 1000			4	4
Examination Glove L/S	Box of 200	9500	1000	1100	11600
Examination Glove M/S	Box of 200	600	1600	1000	3200
Face Shield Protection Anti-Fog Full	Box of 50		1		1
feeding tube CH 6	box of 100			1	1
feeding tube CH 8	box of 100			2	2
Ferrous Sulfate 200mg/Folic Acid 0.4mg Tab.	Box of 1000	1	3	11	15
Fluconazole 100mg cap.	box of 100			97	97
Fluconazole 50mg cap.	Box of 100		100		100
Foley Catheter CH10	box of 10			2	2
Foley Catheter CH12	box of 10			13	13
Furosemide 10mg/ml,2ml Amp.	Box of 100			1	1
Gentamycin 0.3%	box of 50			100	100
Glucometer Machine	Box of 1	2	2	2	6
Glucometer test strip	Box of 50	7	4	8	19
Glucose 5% 500ml (Dextrose)	Box of 20	200	60	480	740
Hydralazine 25mg	box of 1000			6	6
Ibuprofen 200mg Tab.	Box of 1000	1	3	6	10
INFUSION Giving Set (Luer Lock)	Box of 500	450	300	1550	2300
Infusion pump	Pc of 1		1		1
IV Catheter 22G	box of 50			25	25
IV.Catheter 18g Shieded	Box of 50			16	16
IV.Catheter 20g (Shieded-Autoguard)	Box of 50	1	2	28	31
IV.Catheter 24g Shieded	Box of 50	5		27	32
Lamp-Torch (with battery)	Set of 1			2	2
Lopermide 2mg Tab.	Box of 100		96	1	97
Malaria Rapid Test (Para-Check)	Box of 25	8	5		13
Metoclopramide 10mg Tab.	Box of 1000		1000		1000
Metoclopramide 5mg/ml,2ml INJ.	Box of 100		1		1
Metronidazole 5mg/ml	box of 20			25	25
Morphine 10mg	Box of 30			5	5
Needles 19G	box of 100			36	36
Needles 21G	box of 100			25	25
Needles 23G	box of 100			26	26
Nystatin 10000iu	Bottles of 1			113	113
Nystatin 500000iu	box of 100			49	49

Omeprazole 20mg cap.	Box of 1000		4000	4	4004
Oral -Rehydration Salts 20.5g/L for 1Lit	Box of 100	19	22	34	75
pampers for children m/S	Pack of 1	14		24	38
Pampers for children S/S	Pack of 1	5	10	1	16
Paracetamol 100mg Tab.	Box of 1000	2		9	11
Paracetamol 500mg Tab.	Box of 1000	7	10	5	22
Phenobarbital Sodium 200g/ml,1ml Amp.	Box of 100	1	1	17	19
Polyester Bandage 10cm+4m (Crepe Bandage)	Box of 10	100	585		685
Potassium Chloride 0.10g/ml inj.	Box of 50			50	50
Prednisolone 5mg Tab.	Box of 1000		1		1
pulse oximeter	box of 1	2			2
Razors disposable (double blade)	box of 36			180	180
Ringer Lactate 1000ml	Box of 12	8	24	27	59
Ringer Lactate 500 ml bot.	Box of 20	19	83	13	115
Safety Box 5L	Box of 25	25			25
Salbutamol 0.1mg/dose Inhater 200 doses	Box of 1	5	27	22	54
Salbutamol 4mg	box of 1000			10	10
Sphygmomanometer Adult	Set of 1			5	5
Spinal Needles 20G	box of 25			7	7
Spinal Needles 22G	box of 25			7	7
Spironolactone 25mg	box of 1000			15	15
Syringe 10ml	Box of 100	400	600	2200	3200
Syringe 5ml (disposable)	Box of 100	600	400	7000	8000
Syringes 2ml	box of 100			1	1
Tetracycline Eye Ointment 1%	Box of 25	10	12	135	157
Thermometer Digital	Box of 10	1	1		2
Tramadol Hydrochloride 50mg/ml,2ml	Box of 100		1	3	4
Urine test strip	Box of 100	1	5	1	7
Vacutainer Purple EDTA 3.6mg	Box of 100	10	1		11
Water For Injection 10ml	Box of 50	6	4	10	20
Zinc Sulfate 20mg Tab.	Box of 100		1	7	8

Annex 3: Number of IPC supplies by types provided to Redemption hospital and transit unit

DESCRIPTION	unit	Total
Anti-Fog Spray	bottel	2
Examination Gloves, Large	pcs	4300
Examination Gloves, Medium	pcs	4600
Examination Gloves, Small	pcs	4400
Gloves, Resuable, size: 8	Pairs	7
Goggles, wraparound	pcs	8
Hood, Cape, non-woven	pcs	1475
Mask, Respiratory, Round (N95 \$ FFP2	pcs	574
Personal protective equipment L/s	pcs	920
Personal protective equipment m/s	pcs	1880
Personal protective equipment XXL	pcs	360
Surgical Aprons	Pairs	10
Surgical Cap, non-woven	pcs	400
Surgical Gown, XXL	pcs	83
Synthetic Polyisoprene Surgcial Gloves	Pairs	450
Chlorine NADCC 55% (1kg)	Jar	224
Classic Bed Extra 60x90cm	pcs	315
Refuse Bags, Black, 100 lit.	pcs	949
Sanitary towels pads	pks	31
Sharp Container	pcs	2
Sprayer pumps	pcs	6
Tie Soap	pcs	1701
Wata Test for Chlorine	Set	2
Zippers Bags	pcs	62
Bath Soap	pcs	83
Paper Towel	roll	367